

PATENT COOPERATION TREATY

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REC'D 24 MAR 2006


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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 052263WOME/bs	FOR FURTHER ACTION See Form PCT/PEA/416	
International application No. PCT/US2004/041246	International filing date (day/month/year) 08.12.2004	Priority date (day/month/year) 12.12.2003
International Patent Classification (IPC) or national classification and IPC C09J153/02, B32B27/08, C09J151/00		
Applicant 3M INNOVATIVE PROPERTIES COMPANY et al.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau a total of 3 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in Item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input checked="" type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input checked="" type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand 06.10.2005	Date of completion of this report 22.03.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Hammond, A Telephone No. +31 70 340-4253	



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International application No.
PCT/US2004/041246

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-58 as originally filed

Claims, Numbers

1-12 received on 07.10.2005 with letter of 06.10.2005

Drawings, Sheets

1/2, 2/2 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 3-12

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for the said claims Nos. 3-12

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See separate sheet for further details

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Box No. IV Lack of unity of invention

1. ☒ In response to the invitation to restrict or pay additional fees, the applicant has:
- ☐ restricted the claims.
 - ☐ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☒ neither restricted nor paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
- ☐ complied with.
 - ☒ not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts.
 - ☒ the parts relating to claims Nos. 1-2 .

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-2
Inventive step (IS)	Yes: Claims	
	No: Claims	1-2
Industrial applicability (IA)	Yes: Claims	1-2
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Re Item I

Basis of the opinion

1. The present opinion is based on the amended claims 1-2 (based on original application claims 1-4), as filed with the applicant's letter, dated 6th October 2005. (see Items IV and V below)

Re Item IV

Lack of unity of invention

1. The present application claims are considered both "a priori" and "a posteriori" to contain several lacks of unity according to Rule 13.2 PCT and Rule 13.1 PCT for the reasons as outlined in the lack of unity sheet B and invitation to pay additional fees attached to the original search report.

The applicant was originally invited to either restrict the application claims or pay additional fees for the further inventions relating to the said lacks of unity (original application claims 1-4 ; claims 5-10 ; claims 11-14). However, at present only one fee for one invention has been timely paid and consequently this written opinion is for the first invention only relating to amended application claims 1-2 (based on original claims 1-4).

Re Item V

Reasoned statement with regards to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The following documents are cited in the present opinion. The numbering will be adhered to during the rest of the proceedings :

D1 US6503621
D2 DE10063018
D3 WO0214448

2. D1 discloses a pressure-sensitive adhesive composition comprising a cohesive component comprising a styrene-based block copolymer, and a basic component. The disclosures of D1 (abstract ; column 2, line 16-30 ; column 5, line 16-24, 35-40, 45-46 - particularly "combinations of such monomers can be employed" ; column 5, line 27 ; column 6, line 27 - column 7, line 7 ; column 5, line 47-61 "polystyrene" ; claims 1-7) appear to be novelty-attacking for the subject-matter of the present claims 1-2 (Article

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33(2) PCT).

The disclosures of D2 (column 2, line 60-68 ; column 3, line 63-67 - particularly "Copolymerisate auf Basis - Acrylsäure/Methacrylsäure und...substituierte (Meth)acrylamide" ; column 3, line 67 "(meth)acrylamide" ; column 3, line 56-67, 44-45 "im Gemisch" ; claims 5, 6 - particularly "auf Basis eines Acrylat-Copolymerisats", "Acrylsäure, N-terz.-Butylacrylamid" ; column 4, line 1-7) appear to be novelty-attacking for the subject-matter of the present claims 1-2 (Article 33(2) PCT).

The disclosures of document D3 (abstract ; page 8, line 23 "methacrylic acid" ; page 8, line 29 - page 9, line 2 - particularly the copolymerisable monomers "methacrylamides, N-Vinyl lactams" ; page 13, line 19-30) appear to be novelty-attacking for the subject-matter of the present claims 1-2 (Article 33(2) PCT).

1. A pressure-sensitive adhesive composition comprising a
cohesive component comprising a styrene-based block
5 copolymer, and a basic component,

~~2. The pressure-sensitive adhesive composition as defined
in claim 1, wherein said basic component comprises a
nitrogen-containing (meth)acrylic copolymer.~~

2 X. The pressure-sensitive adhesive composition as defined
in claim ¹ 2, wherein said nitrogen-containing (meth)acrylic
copolymer is a copolymer of an alkyl (meth)acrylate and a
nitrogen-containing vinyl monomer, and

~~3. The pressure-sensitive adhesive composition as defined
in claim 2, wherein said nitrogen-containing (meth)acrylic
copolymer is grafted with a polystyrene having a glass
transition point of 20 to 250°C and a weight average
20 molecular weight of 2,000 to 500,000 as measured by gel
permeation chromatography (GPC).~~

3 X. A pressure-sensitive adhesive tape comprising a
stretchable substrate and a pressure-sensitive adhesive
25 layer provided on at least one surface of said substrate,
said pressure-sensitive adhesive layer comprising the
pressure-sensitive adhesive composition described in claim
1.

30 4 X. The pressure-sensitive adhesive tape as defined in

claim ³ 5, wherein said substrate comprises a single-layer or multilayer highly extensible polymer film.

5 5. The pressure-sensitive adhesive tape as defined in claim ⁴ 5, wherein said highly extensible polymer film is at least one polymer film selected from the group consisting of the following polymer films:

10 (1) a polymer film having a lengthwise elongation at break of 50 to 1,200%, an elastic recovery of less than 50% after stretching, and a Young's modulus of 6,894.7 to 499,865.8 KPa,

(2) a foamed polymer film,

15 (3) a polymer film having a stress of 20 N/15 mm or less at the yield point or proportional limit point, a tensile rupture strength of 30 N/15 mm or more and an elongation at break of 150% or more, and

(4) a polymer film comprising a thermoplastic rubber and an adhesive-forming resin.

20 6. The pressure-sensitive adhesive tape as defined in claim ³ 5, wherein said substrate is a composite of a foamed polymer film and a foaming-free polymer film.

25 7. The pressure-sensitive adhesive tape as defined in claim ³ 5, wherein said pressure-sensitive adhesive layer has a thickness of 10 to 1,000 μ m.

30 8. The pressure-sensitive adhesive tape as defined in claim ³ 5, which further comprises a release layer covering said pressure-sensitive adhesive layer.

9 ~~11~~. An adhesion structure comprising a pressure-sensitive
 adhesive tape described in claim ~~8~~³ and an adherend having
 attached thereto said pressure-sensitive adhesive tape
 5 through said pressure-sensitive adhesive layer, wherein
 said pressure-sensitive adhesive tape can be separated
 from said adherend by stretching the substrate of said
 pressure-sensitive adhesive tape.

10 ~~10~~ ~~12~~. The adhesive structure as defined in claim ~~11~~⁹, wherein
 said adherend is formed of a vinyl chloride resin.

~~11~~ ~~13~~. The adhesive structure as defined in claim ~~12~~¹⁰, wherein
 said vinyl chloride resin contains a plasticizer.

15 ~~12~~ ~~14~~. The adhesive structure as defined in claim ~~13~~³, wherein
 said adherend is a sheet-like body.